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The Effects of the
Asset Depreciation Range System on
Depreciation Practices

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Introduction

The Asset Depreciation Range (ADR) System, adopted under regulatory authority June 23, 1971 and codified by passage of the Revenue Act of 1971 on December 10, 1971, provided a range of asset lives for various classes of assets placed in service after December 31, 1970. In effect, this change in law allowed taxpayers to use shorter asset lives without having to justify to them the IRS auditors. Although the Treasury Department considered the ADR system an improvement in tax depreciation policy, the ADR system has been widely criticized, largely because of the revenue loss to the government. Consequently, a few words about the general nature of depreciation may be in order.

The depreciation deduction for tax purposes represents that portion of an asset which has been used up in producing the output. The total return of an asset may be view as consisting of two parts. One part of the income from the asset, which is deemed a return of capital, is not taxable while the remaining part is taxable income. Perhaps the best way to view the reason for the deduction is to compare the purchase of equipment with the holding of a debt instrument. Suppose that in each case the value of the asset is \$100. The debt instrument is a loan for \$100 and carries the requirement that the borrower must repay the loan plus \$10 at the end of one year. Thus, the holder of the debt instrument will receive \$110 at the end of the year. While the total income received is \$110, the amount of the taxable income is only \$10 since the remaining \$100 is merely a return of the taxpayer's original capital. An analogous situation occurs in the purchase of equipment. If the same return is demanded and the equipment lasts

for only one year, the taxpayer will receive \$100 during the year from the sale of the output of the machine. The question then is how much of the \$110 is taxable income. Since the machine by definition lasts only one year, its value is zero and thus has depreciated by \$100. Just as in the case of the debt instrument, the taxpayer has only \$10 of taxable income.

The critical problem is to determine the loss in value of the equipment. The debt instrument at the time of purchase carries a definite repayment agreement immutable by other economic factors.^{1/} Thus, the division between return of capital and taxable income is fixed by the repayment terms. Equipment, however, does not enjoy the benefit of fixed repayment terms. Instead, the life of the asset and the rate of depreciation are determined by largely unpredictable circumstances.^{2/} Unlike the debt instrument, certainty about the amount of depreciation occurring in any given period is only obtained after the equipment has been retired. Consequently, most observers would agree that an adjustment should be made to the total return to exclude the return of capital from the tax base, but there is a substantial controversy over the size of this adjustment. The need for such an adjustment has resulted in the allowance of depreciation deductions for tax purposes. These deductions are computed on the basis of an agreed upon asset life, an arbitrary method of distributing the deductions over the life of the asset, and an estimate of the remaining value of the asset at retirement.

^{1/}The borrower could default on his payment. In this situation, the lender would be allowed a bad debt deduction.

^{2/}While the physical characteristics of equipment are known, changes in demand and general economic conditions cannot be forecast with certainty.

The length of the asset life which defines the period over which the total depreciation deductions are taken has generated the most attention during the evolution of depreciation deductions. Generally the life of an asset is based on the historical experience of similar assets.

The method of distributing the total deductions over the life of the asset has received less attention and at present is no more than a set of arbitrary mathematical formulas.

Finally, the remaining value of the asset at the time of retirement (salvage value) is determined by historical experience.

This paper briefly discusses some of the above issues, but the main concern of it is an analysis of the Asset Depreciation Range (ADR) system. In January, 1973, the Treasury Department initiated a survey, conducted by the Office of Industrial Economics (OIE), to determine the use and effectiveness of the ADR system. This paper presents the results of that survey. The paper is divided into five sections. The first section traces the historical development of the depreciation deduction for tax purposes. The second section presents the results of the survey in respect to the number of corporations electing ADR, the amount of investment covered under ADR and the distribution of electors by asset size and by industry. The third section compares the depreciation practices of electors and non-electors. The uses of the various tax depreciation methods and asset lives for the two groups are compared. The fourth section examines the benefits of electing ADR and attempts to determine why a company did or did not elect. The final section shows the depreciation methods and asset lives used by taxpayers in selected years during the 1954-1971 period.

Section 1

The History of the Evolution of Depreciation Deductions in the Internal Revenue Code

Depreciation allowances in the Internal Revenue Code are intended to provide "a reasonable allowance for the exhaustion, wear and tear" of assets used in the production of income. Since the inception of the Federal income tax, however, much controversy has arisen over the term "reasonable" and these controversies have contributed to the evolution of depreciation deductions.

Five major changes in the code have had dramatic effects on depreciation.

Bulletin F was first issued in 1918. It provided general guidelines for taxpayers but most importantly placed the burden of proof of "reasonableness" on Revenue Agents. Taxpayers were instructed to use a tax depreciation life consistent with their own experience and the procedure suggested the use of straight line and unit-of-production methods of depreciation.

The second major change occurred in 1934. In effect, it placed the burden of proof of reasonable depreciation deductions on taxpayers rather than on Revenue Agents. T.D. 4422 required taxpayers to furnish Revenue Agents any evidence needed to substantiate the fact that their depreciation deductions were reasonable.

In 1942, Bulletin F was reissued and provided a list of some 5,000 asset lives which served as a guideline to acceptable depreciation practices. In spite of the apparent formalization of asset lives, however, taxpayers were still advised to use their own facts and circumstances in determining their depreciation deductions.

Beginning in 1946, more attention was devoted to the types of depreciation methods allowed. The use of the 150 percent declining balance method was administratively approved in 1946. More importantly, however, the Internal Revenue Code of 1954 authorized the use of declining balance methods of depreciation not to exceed twice the straight line rate, the sum-of-years digits method, or any other consistent method which does not result in a higher cumulative depreciation deduction during the first two-thirds of an asset's useful life which is greater than that allowed under the double declining balance method.

After the revisions to the Internal Revenue Code of 1954, attention was again devoted to the asset life question. In 1962, Revenue Procedure 62-21 revised the asset lives provided in Bulletin F. The asset lives authorized under this procedure lowered the Bulletin F lives by an average of 40 percent. In addition to the lowering of asset lives, the Revenue Procedure introduced two new concepts. The first was the "reserve ratio test" which in effect provided evidence as to whether the actual replacement policies of a particular firm were consistent with the depreciation deductions allowed for tax purposes. The second concept, which was later expanded under the Asset Depreciation Range (ADR) system, was an attempt to classify broad asset categories. In addition to providing allowable asset lives for specific types of assets in particular industries, assets used generally in all industries were grouped together. There were five such classes which covered office furniture and equipment, transportation equipment, land improvements, buildings and "subsidiary assets."

In addition to Revenue Procedure 62-21, a change in the treatment of salvage value was also accomplished in 1962. Prior to 1962, the estimated salvage value of an asset was not subject to depreciation allowances. If it was estimated that the remaining value of an asset at the end of its useful life was 10 percent of the original cost, only 90 percent of the cost of the asset could be depreciated. Section 167(f) of the Internal Revenue Code allowed, however, that any salvage value less than 10 percent of the original cost could be depreciated. Thus if salvage value was estimated at 10 percent, the entire cost of the asset would be depreciated and likewise if the salvage value was estimated at 15 percent, 95 percent of the asset could be depreciated.

Finally, in 1971, the Asset Depreciation Range (ADR) system was introduced: A 20 percent range of allowable asset lives was established above and below the lives issued under Revenue Procedure 62-21. The selection of an asset life within this range insures the taxpayer against audit controversy. A detailed description of the system is provided in following sections of the paper.

All the changes indicated above were not intended to affect specific areas, rather they were viewed as general changes in the treatment of depreciation for tax purposes. However, there were a few law changes not mentioned that did extend special treatment to specific industries or assets. These changes include the 5-year amortization allowed on child care facility costs,

coal mine safety equipment, on-the-job training facility costs, expenditures on pollution control facilities, railroad rolling stock and expenditures on the rehabilitation of low income housing. To the credit of legislators, these are the only cases where depreciation deduction allowances were used as an investment incentive device rather than a method to accurately measure income for tax purposes.

ADR Electors

Only about 1.4 percent of U.S. corporations elected the ADR system, but these corporations accounted for nearly 60 percent of the total Section 1245 property (equipment) placed in service in 1971. As seen in Table 1, while nearly 75 percent of all U.S. corporations had less than \$250,000 of assets in 1971, only 42 percent of the ADR electors were in this category. Data in Table 1 also indicate that the percent of companies electing ADR increases as the amount of assets increases. The election rate increases from 0 percent in the less than \$50,000 asset class to 63.1 percent in the asset class of \$1 billion or more.

The small number of companies but relatively large percent of total investment covered by ADR elections indicate that the set of ADR electors is more heavily concentrated among large companies than in the population. Table 2 shows that about 88 percent of the investment covered by ADR in 1971 was placed in service by companies with assets of \$1 billion or more. These companies, which represent less than .05 percent of the total U.S. corporations, placed 64 percent of the total investment in Section 1245 property during 1971.

Table 3 shows the distribution of ADR electors by industry. The percent of firms in each industry electing ADR varies from less than .05 percent in agriculture to 13 percent in the electric, gas and sanitary service industry. In addition to agriculture, the mining, trade, finance and insurance and the service industries had very low election rates, less than the 1.4 percent all industry average.

Table 4 shows that investment covered under ADR is concentrated in three industry categories--manufacturing, communication, and electric, gas, and sanitary services. These three sectors account for about 84 percent of the investment covered under ADR, but only about 66 percent of total investment. The large concentration of ADR investment in manufacturing results simply from the large amount of investment in manufacturing. In fact, the percent of investment covered by ADR in manufacturing (63.8 percent) is very close to the all industry average (59.7 percent). This is not the case in communication and electric, gas and sanitary services where over 90 percent of investment was covered under the ADR system. The seven remaining sectors showed a low percent of covered investment, ranging from a low of 4.1 percent in agriculture to a high of 53.1 percent in transportation.

Table 1
 Number of Companies Electing ADR As a Percent
 of Total Population by Asset Size

Asset size (thousands of dollars)	: : Percent of : total companies : in population	: : Percent of : total ADR : electors	:ADR electors :as percent of :companies in : asset class
Less than 50	39.6	0.0	0.0
50-250	35.3	41.9	1.7
250-500	10.3	12.8	1.8
500-1,000	6.2	9.2	2.1
1,000-5,000	6.1	17.5	4.1
5,000-10,000	1.0	4.8	7.1
10,000-50,000	1.1	6.2	7.6
50,000-100,000	.2	1.9	16.1
100,000-200,000	.1	1.6	22.9
200,000-300,000	*	1.0	34.5
300,000-600,000	*	1.2	40.6
600,000-1,000,000	*	.6	33.6
More than 1,000,000	*	1.4	63.1
Total	100.0	100.0	1.4

*less than .05 percent

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Table 2
1971 Investment in Section 1245 Property and the Amount of
Investment under ADR by Asset Class as a Percent of Total Investment

Asset size (thousands of dollars)	: : 1971 : Total investment in: : Sect. 1245 Property : (percent)	: Investment : under ADR as : a percent of : investment by : asset class	: Investment : under ADR as : a percent of : total investment : under ADR
Less than 50	*	0	0
50-250	*	*	*
250-500	*	*	*
500-1,000	.3	20.0	*
1,000-5,000	10.6	25.7	4.6
5,000-10,000	3.7	3.8	.2
10,000-50,000	10.7	8.0	1.4
50,000-100,000	2.3	18.8	.7
100,000-200,000	1.9	23.1	.7
200,000-300,000	1.4	30.0	.7
300,000-600,000	2.7	36.8	1.7
600,000-1,000,000	2.7	42.1	1.9
More than 1,000,000	63.9	82.5	88.2
Total	100.0	59.7	100.0

*Less than .05 percent

Table 3
 Number of Companies Electing ADR As a Percent of
 Total Population by Industry Division

Industry	: Percent of total : companies in : population	: Percent of : total ADR : electors	: ADR electors as a : percent of companies : in the industry
Agriculture	1.8	*	*
Mining	.6	.2	.5
Construction	14.2	31.6	3.0
Manufacturing	15.5	25.0	2.2
Transportation	1.9	3.3	2.3
Communication	.5	.7	1.8
Elec., Gas & Sanitary Serv.	.3	2.6	13.0
Trade	40.5	33.9	1.1
Finance & Insurance	3.3	1.4	.6
Services	21.3	1.3	.1
Total	100.0	100.0	1.4

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Table 4
**Investment Depreciated Under The ADR System by
Major Industry Category (1245 Property Only)
1971**

Industry	: : Industry investment: : as a percent of : total investment	: Investment under : ADR as a percent : of total investment: : under ADR	: Investment under : ADR as a percent : of industry : investment
Agriculture	.5	*	4.1
Mining	2.6	0.9	20.5
Construction	5.3	2.8	31.0
Manufacturing	38.1	40.7	63.8
Transportation	6.9	6.1	53.1
Communication	12.5	18.9	90.5
Elec., Gas & Sanitary Serv.	15.7	24.1	91.8
Trade	10.1	4.4	26.0
Finance & Insurance	2.2	1.0	27.4
Services	6.2	1.1	10.5
Total	100.0	100.0	59.7

*Less than .05%

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Section 3

Comparison of Depreciation Practices of ADR Electors and Non-Electors

Those firms electing ADR differ in many respects from those not electing the system. The first section showed that ADR electors are predominantly larger firms, few in number, controlling nearly 40 percent of total assets owned by U.S. corporations, and accounting for nearly 60 percent of Section 1245 (equipment) investment in 1971. In this section the depreciation practices of the two groups of companies are compared.

Table 5 compares the depreciation method used by electors and non-electors by industry group. The difference is striking. While only 2.3 percent of electors use straight-line depreciation, about 43 percent of non-electors used this method. Rather than using straight-line depreciation, most ADR electors used the more accelerated methods of declining balance at twice the straight-line rate and the sum of years digits method. Table 6 shows the percentages of firms using the principal depreciation methods by the size of total assets of the firm and by elector and non-elector classes. Firm size does not appear to affect the choice of depreciation methods. With the exception of the less than \$250,000 and the \$500,000 to \$1,000,000 asset classes for electors, the use of the four methods for electors and non-electors in each asset size class does not appreciably differ from the all asset size average for electors and non-electors.

Table 5
A Comparison of the Depreciation Method Used by
Electors and Non-Electors by Industry

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Industry	Depreciation	Percentage use of depreciation method	
	method	Elector	Non elector
All Industries	S.L.	2.3	43.2
	1.5 D.B.	2.5	2.4
	2 D.B.	75.6	48.3
	S.Y.D.	19.6	6.1
Agriculture	S.L.	61.4	60.2
	1.5 D.B.	-	.4
	2 D.B.	17.2	36.1
	S.Y.D.	21.4	3.3
Mining	S.L.	49.1	31.3
	1.5 D.B.	2.1	.1
	2 D.B.	48.1	66.2
	S.Y.D.	.8	2.4
Contract Construction	S.L.	.8	27.7
	1.5 D.B.	79.4	11.4
	2 D.B.	18.9	60.1
	S.Y.D.	18.9	60.8
Manufacturing	S.L.	2.5	38.3
	1.5 D.B.	.2	1.5
	2 D.B.	72.6	50.2
	S.Y.D.	24.8	9.9
Transportation	S.L.	4.3	45.1
	1.5 D.B.	.4	5.9
	2 D.B.	78.5	48.7
	S.Y.D.	16.9	.3
Communication	S.L.	.2	76.1
	1.5 D.B.	-	.5
	2 D.B.	97.6	12.2
	S.Y.D.	2.3	11.2
Elec., Gas & Sanitary Services	S.L.	.6	14.3
	1.5 D.B.	.2	.3
	2 D.B.	73.1	72.3
	S.Y.D.	26.2	13.2
Trade	S.L.	5.9	45.7
	1.5 D.B.	-	.1
	2 D.B.	59.8	51.2
	S.Y.D.	34.3	3.0
Finance and Insurance	S.L.	20.0	60.9
	1.5 D.B.	-	2.5
	2 D.B.	29.2	31.1
	S.Y.D.	50.8	5.5
Services	S.L.	6.3	59.6
	1.5 D.B.	.3	2.2
	2 D.B.	76.9	31.4
	S.Y.D.	16.6	6.8

Table 6
A Comparison of the Depreciation Methods Used
by Electors and Non-Electors by Asset Size

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Asset size (\$000's)	Depreciation method	Percentage use of depreciation method	
		Elector	Non-elector
All Asset Sizes	S.L.	2.3	43.2
	1.5 D.B.	2.5	2.4
	2 D.B.	75.6	48.3
	S.Y.D.	19.6	6.1
0-250	S.L.	-	44.7
	1.5 D.B.	85.7	-
	2 D.B.	14.3	55.3
	S.Y.D.	-	-
250-500	S.L.	-	64.4
	1.5 D.B.	-	8.4
	2 D.B.	100.0	25.0
	S.Y.D.	-	2.2
500-1,000	S.L.	74.8	37.2
	1.5 D.B.	-	7.4
	2 D.B.	25.2	55.4
	S.Y.D.	-	-
1,000-5,000	S.L.	6.5	49.4
	1.5 D.B.	-	2.2
	2 D.B.	93.0	47.1
	S.Y.D.	0.5	1.3
5,000-10,000	S.L.	2.3	45.2
	1.5 D.B.	-	1.8
	2 D.B.	82.6	47.3
	S.Y.D.	15.1	5.7
10,000-50,000	S.L.	3.8	36.4
	1.5 D.B.	2.2	1.8
	2 D.B.	74.2	51.6
	S.Y.D.	19.8	10.2
50,000-100,000	S.L.	2.5	35.0
	1.5 D.B.	0.7	1.4
	2 D.B.	69.4	48.0
	S.Y.D.	27.4	15.6
100,000-300,000	S.L.	6.7	40.3
	1.5 D.B.	0.6	0.4
	2 D.B.	68.2	45.7
	S.Y.D.	24.5	13.6
300,000-600,000	S.L.	1.7	26.8
	1.5 D.B.	0.2	.3
	2 D.B.	63.8	56.8
	S.Y.D.	34.4	16.1
600,000-1,000,000	S.L.	6.9	29.9
	1.5 D.B.	0.1	-
	2 D.B.	73.3	69.6
	S.Y.D.	19.7	0.5
1,000,000 & over	S.L.	1.0	37.3
	1.5 D.B.	0.0	0.8
	2 D.B.	81.1	49.8
	S.Y.D.	17.9	12.1

The other part of a company's depreciation (that part affected by ADR) lies in its choice of a tax life over which an asset is depreciated. Table 7 shows the average pre-ADR lives used by electors and non-electors and the average ADR life selected by electors. The all industry average life of 8.0 years for non-electors was more than 40 percent lower than the 14.0 years used by electors. The average asset lives by firm asset size class, rather than industry division, are shown in Table 8. With the exception of firms with assets of less than \$250,000 and \$1 to \$5 million, the life used by electors prior to ADR is longer than the life used by non-electors. The life used by relatively large companies tends to be longer than that used by smaller companies.^{1/}

The asset life differentials between ADR electors and non-electors shown in Table 7 could be the result of two factors. Non-electors may simply have been using a shorter tax life than electors for identical assets. A second explanation for the difference is that the lives shown are averages for the entire industry, and thus are a weighted average of various asset types with various asset lives. Non-electors may have

^{1/} As indicated in the last part of this section, the comparison of average asset lives is not particularly meaningful since differences can be due to the use of different lives for identical assets and/or a different composition of the investment portfolio between long and short-lived assets.

Table 7

Asset Lives Used by Electors and Non-Electors, by Industry

Industry	: <u>Pre-ADR asset life</u> :		: ADR life
	: Electors	: Non-electors	: selected by electors
All Industries	14.0	8.0	12.5
Agriculture	10.0	7.5	10.5
Mining	11.0	7.0	9.0
Contract Construction	3.0	6.0	3.0
Manufacturing	11.5	9.0	9.5
Transportation	10.5	7.5	8.5
Communication	17.5	9.0	13.0
Elec., Gas & Sanitary Services	27.0	6.5	21.0
Trade	9.0	8.5	7.5
Finance & Insurance	15.5	9.5	13.0
Services	7.0	6.0	5.5

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Table 8
A Comparison of Asset Lives Used by
Electors and Non-Electors by Asset Size

Asset size (thousands of dollars)	Pre-ADR asset life		:ADR life selected by electors
	: Electors	: Non-electors	
All Asset Sizes	14.0	8.0	12.5
0-250	3.5	6.0	3.0
250-500	10.0	7.0	10.0
500-1,000	10.5	6.5	9.5
1,000-5,000	7.5	7.5	6.0
5,000-10,000	9.5	8.0	8.5
10,000-50,000	12.0	8.0	10.0
50,000-100,000	11.0	7.5	9.0
100,000-300,000	13.0	9.0	11.0
300,000-600,000	14.5	9.0	12.0
600,000-1,000,000	14.5	9.5	12.0
1,000,000 & over	15.5	8.0	12.5

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placed in service a portfolio more heavily weighted with short-lived assets while electors may have invested more heavily in longer-lived assets. The life differences are probably a combination of these two reasons. The large differences between electors and non-electors in the lives used in communication, electric, gas and sanitary services and finance and insurance are probably due to differences in investment composition. The longer life for non-electors than electors in contract construction may also be due to the differences in investment composition.

To completely exclude the effect of the composition of investment, we would have to compare the asset lives for electors and non-electors in each of the 89 ADR asset classes. The small sample size of the O.I.E. survey precludes this type of comparison, but a similar procedure can be used. For the O.I.E. survey, companies were asked to state the ADR class for each of the assets placed in service. Unfortunately, not all firms completed this part of the questionnaire. Those that did provide the ADR class designations accounted for nearly 50 percent of total investment of ADR electors and 30 percent of the total investment of non-electors. For this subset of the O.I.E. survey, it is possible to compute the life used by non-electors, the pre-ADR life used by electors, the ADR life selected by electors and the weighted average mid-point of the ADR allowable life range. Comparing the lives used with the ADR mid-point provides some indication as to whether ADR electors were, in fact, using longer lives than non-electors for identical asset types,

or whether the asset life differences shown in Tables 7 and 8 are due merely to a different composition of investment portfolios between long-run and short-lived assets.

Table 9 provides the data on asset lives for those firms completing the O.I.E. survey as required. Since Table 9 excludes incomplete records, the industry average asset lives are not consistent with the lives presented in Table 7. For example, in the contract construction industry, the pre-ADR life used by electors is 5.5 years longer in Table 9 than in Table 7. The all industry average pre-ADR life is 3.5 years longer for electors and 1.5 years longer for non-electors.

Three relevant points are apparent from Table 9. The first point is that electors did have a longer average "Guideline" life, 1/ indicating that their investment portfolio was more heavily concentrated with long-lived assets. The average "Guideline" life for electors was 17.5 years or about 70 percent higher than the average of 10.5 years for non-electors. The second point is that non-electors were generally already using a life shorter than "Guideline" thus reducing the potential benefit from electing ADR. By contrast, ADR electors were using an average life exactly equal to or higher than the "Guideline" life. 2/ Finally, Table 9 indicates that the electors in this subsample tended to select the lower limit of the ADR allowable life range.

1/ The average guideline life is the midpoint of an asset's life allowed under ADR.

2/ As shown in the next section, the potential for a greater life reduction in combination with a higher level of investment results in a much higher potential benefit from ADR for electors than non-electors.

Table 9
A Comparison of the Average Pre-ADR Life and Average "Guideline" Life
for Electors and Non-Electors and the Average ADR Life
Selected by ADR Electors by Industry

Industry	Electors			Non-electors	
	Pre-ADR : life used	: ADR life : selected	: Average : "Guideline" : life	Pre-ADR : life used	: Average : "Guideline" : life
All industries	17.5	14.0	17.5	9.5	10.5
Agriculture	17.5	11.5	14.0	10.5	11.0
Mining	13.0	10.5	12.5	10.0	10.5
Contract construction	8.5	5.5	6.5	5.5	5.5
Manufacturing	12.0	10.0	12.0	11.0	11.5
Transportation	13.0	10.5	12.5	10.0	9.5
Communication	21.5	18.5	23.0	10.0	22.0
Elec., Gas & Sanitary Services	27.5	21.5	27.5	24.0	24.0
Trade	9.0	7.5	9.0	8.5	10.0
Finance, Insurance	16.5	13.0	15.5	9.5	9.5
Services	7.0	6.0	6.5	7.5	7.5

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The results of Table 9 should be interpreted carefully. The fact that the lives are longer than those obtained from the entire sample should be of concern. We do not know the relationship between the shorter lives excluded due to incomplete data, and the "Guideline" lives. In fact, there is evidence that the ADR electors excluded were using lives somewhat shorter than "Guideline" lives since Table 7 indicates an average life reduction of only 11 percent rather than the full 20 percent indicated in Table 9. Either some firms did not select the lower limit of the ADR life range or they were already using a life shorter than the "Guideline" life.

Section 4

Benefits of ADR Election

The decision of a firm whether to elect the ADR system is based on the expected costs and benefits from the system. The only cost to the firm is that involving preparation of data which the company must supply as a requirement for election. Each type of asset must be classified in an Asset Guideline Class and an account kept of this class including such items as the age, adjusted basis, year of acquisition and retirement of each individual type of asset. Most companies, and certainly the large companies, already use a similar accounting procedure, but some additional cost may be involved in reorganizing the existing accounts. The benefits of electing ADR are:

- (1) A shorter asset life for tax purposes, resulting in a larger present value of the tax depreciation deduction;
- (2) Less audit controversy over the asset life selected by the taxpayer;
- (3) A much simpler method of classifying assets for purposes of tax depreciation.

The relevant question then is whether the benefits are greater than the costs of electing ADR. Unfortunately, it is difficult to estimate the costs of election, thus we will be concerned only with the benefits of ADR. The quantifiable benefits (item (1), above) are computed by comparing the present values of tax depreciation deductions with an without the ADR system. The difference between the present values using the pre-ADR life and the ADR life is a measure of the benefit of ADR. Present values are calculated using a 10 percent discount rate. The benefit is positive if the ADR life is shorter than the pre-ADR life and negative if the ADR life is longer than the pre-ADR life.

Table 10 shows the dollar amount of benefit, the average benefit per firm and the average benefit per dollar of investment received by ADR electors by industry division. Agriculture shows the only negative benefit and is consistent with the asset life shown in Table 7. The pre-ADR asset life for electors in agriculture was 10.0 years while the ADR life they selected was 10.5 years. The average loss per firm in agriculture was only \$100. This result is consistent with rational behavior if we assume that the benefits received from the reduction of no audit controversy and the simplified method of classification offset this loss.

The total benefit to electors of \$902 million produced an average benefit per firm of about \$1,000 or 2.4 cents for every dollar of investment. The total benefit, average benefit per firm and average benefit per dollar of investment varied considerably across industries. The average benefit per firm and total benefit are, of course, affected by the level of investment whereas the average benefit per dollar of investment depends only on the asset life reduction allowed by the ADR election.^{1/} Communication and electricity, gas and sanitary services receive nearly 60 percent of the total benefit of ADR while accounting for only 43 percent of total investment under ADR. The fact that they receive a greater percent of benefits than their percent of total investment indicates that they enjoyed a larger asset life reduction than the average. As indicated in section 2, both of these industries

^{1/} The depreciation method also affects the benefit, but the present use of depreciation methods does not vary enough between industries to significantly affect the relative benefits.

Table 10
The Benefit Received by ADR Electors by Industry Division, 1971

Industry	Total benefit :(millions of dollars)	Average benefit : per firm :(thousands of dollars)	Average benefit : per dollar of : investment :(percent)
All Industries	902.2	1.0	2.4
Agriculture	-.1	-0.1	-0.5
Mining	3.4	0.8	1.0
Contract Construction	9.2	*	0.8
Manufacturing	301.4	0.9	2.0
Transportation	44.2	1.0	2.0
Communication	241.7	23.3	3.1
Elec., Gas & Sanitary Services	274.6	9.6	2.8
Trade	15.1	0.1	1.5
Finance & Insurance	9.3	0.4	2.3
Services	3.2	0.2	0.7

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*Less than \$50.

had been using an asset life approximately equal to the "Guideline" life and thus, by electing ADR, firms in these industries were able to reduce their lives by nearly the full 20 percent allowance. Manufacturing companies accounted for another 30 percent of the total benefit which was less than their nearly 41 percent share of total investment under ADR.

Table 11 shows the same values as Table 10, but is tabulated by asset size. As expected, total benefit increases with asset size. The average benefit per dollar of investment shows a slight, but erratic, increase as asset size increases, which is consistent with the asset lives presented in Table 8.

Tables 10 and 11 show the actual benefit received by ADR electors. Benefits were computed using the average pre-ADR life and the average ADR life selected by electors. An important question left unanswered is what the benefit would have been for non-electors had they decided to elect. To address this question, the ADR class must be known so as to compute the maximum allowable life reduction. As indicated in section 2, not all firms provided this data. The same subsample used to generate Table 9 of section 2 is used here, and the same qualifications also apply.

Table 12 shows the average potential benefit per company and the average potential benefit per dollar of investment by asset size class. The first four columns of the table show the average benefit per company ^{1/} for all companies and for only those companies with positive investment.

^{1/} Zero investment results in a zero benefit.

Table 11
The Benefit Received by ADR Electors by Asset Size, 1971

Asset size (thousands of dollars):	Total benefit (millions of dollars)	Average benefit per firm (thousands of dollars)	Average benefit per dollar of investment (percent)
Total	902.2	1.0	2.4
0-250	7.8	*	0.7
250-500	0.0	0.0	0.0
500-1,000	1.3	*	1.2
1,000-5,000	4.3	*	0.8
5,000-10,000	5.3	0.1	1.8
10,000-50,000	21.8	0.2	2.4
50,000-100,000	25.0	0.8	2.6
100,000-200,000	29.6	1.2	2.2
200,000-300,000	26.0	1.7	2.1
300,000-600,000	90.8	4.8	2.4
600,000-1,000,000	62.9	6.5	2.0
1,000,000 & over	627.3	27.8	2.6

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*Less than \$50.

With the exception of one asset class which showed a negative ADR benefit (\$1 million to \$5 million), the firms electing ADR had a higher potential benefit from election than those which did not elect. The higher potential benefit is due to the fact that electors were using a longer life than non-electors prior to the initiation of ADR, and that their level of investment in 1971 was higher than non-electors.

The last two columns of Table 12 reflect the ADR benefit due only to the potential life reduction allowed under ADR. Again, only the \$1 million to \$5 million asset size class shows a negative benefit for electors. In all but two asset size classes the potential benefit of ADR for electors was higher than for non-electors. This result indicates that non-electors were using a life shorter than electors prior to the initiation of ADR. This result is consistent with the lives for electors and non-electors shown in section 2 above.

Table 12
Maximum Average Benefit per Company and Average Benefit per Dollar of Capital Expenditure
for ADR Electors and Non-Electors by Asset Size Class; 1971

Asset size (\$000's)	Average benefit per company (thousands of dollars)				Average benefit per dollar of investment (percent)	
	All companies		Only companies with positive investment		Elector	Non-elector
	Elector	Non-elector	Elector	Non-elector		
0-250	2.6	*	5.2	-3.8	5.2	-3.8
250-500	3.4	*	3.4	3.4	3.4	.4
500-1,000	1.8	-.1	2.1	-1.3	1.8	-.6
1,000-5,000	-3.1	.1	-5.7	1.4	-1.6	.5
5,000-10,000	5.3	-.4	6.6	-2.3	1.4	-.6
10,000-50,000	19.3	1.4	20.6	6.6	2.1	1.2
50,000-100,000	56.0	6.7	57.2	10.8	1.9	1.3
100,000-200,000	170.4	10.7	177.3	16.5	3.2	1.4
200,000-300,000	154.0	28.8	154.0	37.9	2.1	2.0
300,000-600,000	510.7	-2.2	516.1	-2.5	2.5	-.2
600,000-1,000,000	1,083.4	149.2	1,104.2	197.7	2.5	2.8
1,000,000 or more	2,182.5	169.9	2,182.5	174.7	2.7	1.6
Average	51.2	.1	74.5	2.3	2.5	.6

Table 13
Maximum Average Benefit per Company and Average Benefit per Dollar of Capital Expenditure
for ADR Electors and Non-Electors by Major Industry, 1971

Industry	: Average benefit per company (thousands of dollars) :						: Average benefit per dollar	
	: All companies :			: Only companies with positive investment :			: of investment (percent)	
	: Elector	: Non-elector	: Elector	: Non-elector	: Elector	: Non-elector	: Elector	: Non-elector
Agriculture	9.4	*	9.4	11.7	4.7	2.3		
Mining	54.6	.9	211.1	11.9	3.3	1.1		
Contract Construction	1.8	*	3.6	3.7	2.7	1.0		
Manufacturing	53.1	.2	58.1	6.8	2.1	1.3		
Transportation	72.6	.2	86.5	3.1	2.4	.5		
Communication	147.7	-2.4	152.2	-30.0	2.2	-8.4		
Utilities	612.1	2.8	975.63	33.3	3.3	2.3		
Trade	15.2	*	33.1	-.8	2.0	-.3		
Finance	73.3	.1	73.3	.9	2.8	.4		
Services	15.2	*	16.2	2.9	1.1	.8		
Average	51.2	.1	74.5	2.3	2.5	.6		

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While the average benefit per company greatly increases with the size of the company, the average benefit per dollar of investment does now show the same dramatic increase. The second and third smallest asset size classes show the largest average benefit per dollar of investment. Apparently the average life change allowed by ADR does not vary appreciably by size of firm. The large increase in the benefit per firm is the result of higher investment levels by larger firms.

Table 13 shows the same information provided in Table 12 by major industry group rather than by asset size. Much the same result obtained. Those firms that elected ADR had a higher potential ADR benefit than non-electors in all industries. The average benefit per dollar of investment varied from 1.1 percent to 4.7 percent with an all industry average of 2.5 percent. Industries dominated by large companies (communication and utilities) showed a high average benefit per firm with an all industry average of about \$51 thousand.^{1/}

^{1/} The all industry average benefit per firm for electors is more than 30 times the potential benefit per firm for non-electors, whereas the average benefit per dollar of investment for electors is only four times the potential benefit per dollar of investment for non-electors. This difference again testifies to the fact that primarily large firms elected ADR.

Section 5

A Comparison of the Asset Lives and Depreciation Method Used For Selected Years Since 1954

Before 1954, taxpayers were generally limited to the straight-line depreciation method. 1/ In 1954, depreciation allowances were liberalized to allow general use of accelerated depreciation. Declining balance methods at 1.5 and 2.0 times the straight-line rate were allowed as well as the sum-of-years digit method. These accelerated methods allow a faster write-off of capital expenditures and therefore reduce the cost of capital. Table 16 shows the relative usage of the principal depreciation methods for the period immediately following the 1954 tax law change (1954-1959) and for 1971. The use of straight line has declined more than 50 percent during the period while the use of the declining balance methods has more than doubled. 2/

The contract construction industry and the transportation, communication, and electric, gas and sanitary service industries had the most dramatic change. During the 1954-1959 period about 60 percent of the investment in these industries was depreciated using the straight-line method. By 1971, less than 20 percent used straight line in contract construction and only 7.7 percent of the investment in the transportation communication, gas, electric and sanitary service industries used straight line.

1/ Accelerated depreciation methods were allowed in selected cases prior to 1954.

2/ The decrease in the use of the most rapid method of depreciation (S.Y.D.) is confusing and unexplained anomaly.

Table 17 shows the average asset life used by taxpayers during the 1954-1971 period. There was a significant decline in asset life between the pre-1954 period and the 1954-1959 period. For all industries, the life remained the same until the initiation of ADR which decreased the average life by 14 percent to 12.5 years. The ADR system allows a 20 percent life reduction from the "Guideline" lives, but not all taxpayers that could have reduced their asset life elected ADR and some of those that did elect ADR were already using a life less than "Guideline" resulting in an overall reduction of 14 percent rather than 20 percent.

All but two of the industries in Table 16 show an increase in asset life between the 1954-1959 period and 1970. Most likely, asset lives remained about the same during the period. The O.I.E. survey is a relatively small sample and is subject to coefficient of variations of about 10 percent. In addition, the asset lives calculated from the survey may be biased upwards. This possible bias is due to the type of respondents to the questionnaire. The intent of the survey was to determine who elected ADR and why ADR was elected. One would expect, therefore, that the respondents would be heavily weighted with ADR electors, and this is the case. Since one reason to elect ADR is to obtain a shorter tax life, ADR electors were generally using a tax life longer than the non-electors. Thus, since electors generally used a longer tax life than non-electors and they are heavily weighted in the sample, the tax lives may be biased upward.

Table 16
Comparison of Percent Use Depreciation Methods Used for Tax Depreciation
of Machinery and Equipment in Selected Years by Major Industry

Industry	Method	Year of use	
		1954-1959	1971
All Industries	S.L.	44.4	18.3
	D.B.	29.7	66.7
	S.Y.D.	22.8	14.2
	Other	3.1	.8
Agriculture	S.L.	82.0	60.3
	D.B.	16.1	35.7
	S.Y.D.	1.7	4.0
	Other	.2	-
Mining	S.L.	47.9	32.8
	D.B.	19.9	59.5
	S.Y.D.	1.9	2.0
	Other	30.3	5.8
Contract Construction	S.L.	62.3	18.1
	D.B.	31.5	73.8
	S.Y.D.	6.2	6.6
	Other	-	1.6
Manufacturing	S.L.	30.2	15.7
	D.B.	33.4	64.8
	S.Y.D.	33.5	19.2
	Other	2.9	.3
Transportation, etc.	S.L.	60.3	7.7
	D.B.	26.3	77.9
	S.Y.D.	10.8	14.0
	Other	2.6	.4
Wholesale & Retail Trade	S.L.	60.0	38.5
	D.B.	20.1	52.8
	S.Y.D.	19.3	8.7
	Other	.6	-
Finance, etc.	S.L.	67.3	49.4
	D.B.	23.0	32.3
	S.Y.D.	9.6	18.3
	Other	.1	-
Services	S.L.	57.0	49.4
	D.B.	33.5	36.6
	S.Y.D.	9.5	7.5
	Other	-	6.5

Table 17
Comparison of Asset Life Used for Tax Depreciation of Machinery and
Equipment in Selected Years by Major Industry

Industry	Year of use			
	1954	1954-1959	1970	1971
All Industries	19.3	14.3	14.5	12.5
Agriculture	17.9	7.9	8.5	8.5
Mining	9.1	9.2	9.5	9.5
Construction	11.9	5.6	5.5	5.0
Manufacturing	17.1	14.0	11.0	10.0
Transportation	(
Communication	(23.3	17.7	21.7	17.6
Elec., Gas & Sanitary Serv.	(
Wholesale & Retail Trade	13.4	9.4	10.5	10.5
Finance, Ins., & Real Estate	16.4	9.7	12.5	11.5
Services	12.0	6.9	7.0	7.5

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April 22, 1974

APPENDIX A

A Description of the 1973 Survey of
Recent Experience With Tax Depreciation Rules
(Office of Industrial Economics (OIE) Survey)

The OIE Survey is based on a subsample of firms selected from the 1970 Corporate Statistics of Income (SOI) sample. The 1970 Corporate SOI is a stratified sample of about 110,000 firms representing a tax filing population of nearly 1.75 million corporations.¹

For purposes of the OIE Survey, a stratified sample of 10,000 returns was selected. Questionnaires were sent to these corporations in February, 1973, with telephone and mail follow-up to nonrespondents by March, 1973. The selection rates for the OIE sample are shown in Table 1. The rates vary from a low of one in 300 for firms with assets of less than \$5 million in the Finance, Insurance and Real Estate Industry (SIC Industry Code 60) to a high of one in one for large firms.

¹A detailed description of the Corporate SOI sample is available in the Statistics of Income 1970, Corporation Income Tax Returns, Department of the Treasury, Internal Revenue Service, Publication 16 (4-74), U.S. Government Printing Office, Washington, D.C. 20402, pp. 187-191.

Table 1

Rates Used for Subsampling SOI

Asset Size	SIC Industry (1120)					All Industry - 1120S	
	01 - 39	40 - 49	50, 52	60	70 - 80	Asset Size	Rate
< 50,000	1/50	1/50	1/100	1/300	1/50	$\leq 50,000$ or not reported	1/100
50,000 < 250,000	1/15	1/10	1/50	1/300	1/25	50,000 < 100,000	1/20
250,000 < 5 million	1/10	1/3	1/25	1/300	1/10	100,000 < 500,000	1/10
5 million < 10 million	1/4	1/1	1/10	1/200	1/3	$\frac{1}{2}$ million < 1 million	1/3
10 million < 25 million	1/2	1/1	1/5	1/200	1/2	1 million < 5 million	1/30
25 million < 50 million	1/1	1/1	1/1	1/75	1/1	5 million < 10 million	1/1
≥ 50 million	1/1	1/1	1/1	1/13	1/1	≥ 10 million	1/1

While the sample size was relatively large, the response rate was only about 40 percent. Only about 4,100 firms returned a completed questionnaire. However, the response rate was nearly 70 percent for firms with assets greater than \$50 million and nearly 83 percent for firms with assets greater than \$1,000 million. Thus, the survey has an excellent representation of large firms. The actual number of firms selected for the sample and the corresponding number of firms responding in a particular stratum are shown in Tables 2 and 3.

TABLE 2

SAMPLE SELECTED AND RESPONSE BY INDUSTRY AND ASSET SIZE

Asset Size	INDUSTRY (1120)														All 1120s			Total	
	01 - 39		40 - 49		50, 52		60		70 - 80		Select	Response	Select	Response	Select	Response			
	Select	Response	Select	Response	Select	Response	Select	Response	Select	Response									
	Select	Response	Select	Response	Select	Response	Select	Response	Select	Response	Select	Response	Select	Response	Select	Response			
< 50,000	54	7		12	--	34	4	5	--	63	9	34	5		202	25			
50,000 < 250,000	315	62		81	20	147	35	5	--	102	25	76 ^{1/}	18 ^{1/}		726	160			
250,000 < 5 million	1,190	431		464	158	398	135	19	5	303	94	672 ^{2/}	198 ^{2/}		3,046	1,021			
5 million < 10 million	459	190		198	70	71	27	12	5	102	33	97	27		939	352			
10 < 25 million	935	388		288	143	144	62	31	16	149	43	35	13		1,582	665			
25 < 50 million	748	345		121	63	225	92	34	19	105	39				1,233	558			
≥ 50 million	1,152	804		346	268	243	139	222	121	101	49				2,064	1,381			
Total	4,853	2,227		1,510	722	1,262	494	328	166	925	292	944	261		9,792	4,162			

1/ For 1120S interval of asset size is \$50,000 \$100,000

2/ For 1120S interval of asset size is \$100,000 \$5 million

TABLE 3

SAMPLE SELECTED AND RESPONSE BY INDUSTRY AND ASSET SIZE

Asset Size	INDUSTRY (4120)												All 1120s		Total	
	01 - 39			40 - 49			50, 52			60			70 - 80			Total
	Select	Respond		Select	Respond		Select	Respond		Select	Respond		Select	Respond		
50 < 100 million	438	265	97	65	122	56	97	52	48	25			802	463		
100 < 200 million	315	220	64	41	58	36	49	29	31	13			517	339		
200 < 300 million	101	76	34	29	25	17	21	11	13	7			194	140		
300 < 400 million	58	45	27	24	11	9	10	5	3	--			109	83		
400 < 500 million	48	38	19	17	5	4	6	3	1	1			79	63		
500 < 600 million	32	27	9	9	3	2	4	2					48	40		
600 < 700 million	22	16	5	4	4	3	4	4					35	27		
700 < 800 million	10	8	11	11	1	--	6	4	1	1			29	24		
800 < 900 million	11	8	7	5	4	3	5	3	2	1			29	20		
900 < 1000 million	14	10	5	5	4	4	1	--	1	--			25	19		
1 < 1.3 billion	23	21	18	16	2	2	7	2	1	1			51	42		
1.3 < 1.6 billion	20	19	14	11			3	--					37	30		
1.6 < 1.9 billion	16	14	7	6			2	--					25	20		
≥ 1.9 billion	44	37	29	25	4	3	7	6					84	71		
Total	1,152	804	346	268	243	139	222	121	101	49			2,064	1,381		

APPENDIX B

The Questionnaire Used in the
1973 Survey of Experience With Recent Tax Depreciation Rules

A copy of the questionnaire follows. It consisted of three parts. Part I requested general information concerning depreciation practices. Part II requests specific information from both ADR electors and non-electors concerning the asset life and depreciation method used by the firm by type of asset. In addition to lives and methods, the firm was asked to report the amount of investment in each type of asset. Finally, the last part of the questionnaire asked questions about the usefulness of the ADR system as well as soliciting suggestions for change.

PUNCH NUMBER BESIDE
ANSWER CHECKED
RECORD ENTRY BY
PUNCH
PUNCH DIGITS ONLY
PUNCH VALUE; IF
CHECKED, PUNCH 1

II
SXUF 200000002
111127990

HEAD, TAX DEPARTMENT
NATIONAL SPINNING CO., INC.
168 MADISON AVE.
NEW YORK, N.Y. 10016

1,3

1973 Survey of Experience with Recent Tax Depreciation Rules

Name and address
of reporting
company

1,4
Nanda

Name of Preparer
Telephone Number

The tax year of this com-
pany ends (Month) (Day)

An income tax return for the year ending in 1971
has been filed by this company 1. Yes 2. No 1,5

This company files consolidated tax returns
1,6 1. Yes 2. No

Total number of companies in latest consolidated
tax return 1,7

PART I

Depreciation Procedures Used or to be Used in
Income Tax Returns for Tax Years Ending in
1970, 1971, and 1972

- With respect to your depreciable assets acquired during tax years ending before January 1, 1971, under what method were you justifying the depreciation lives you were using for tax purposes in 1970?
 - If you checked "facts and circumstances", were the lives you justified
 - If you checked "guidelines", were the lives you justified
- For depreciable assets placed in service since January 1, 1971, have you filed an election to use ADR, by the date on which you received this form? (Check one for each year)

(Check One)
facts and circumstances 1,8
guidelines, as provided in Revenue Pro-
cedure 62-21, or Rev. Proc. 62-1, 62-2
& 62-7 2,

(Check One)
about the same as "guideline" lives? 1,

shorter than "guideline" lives? 2,

longer than "guideline" lives? 3, 1,9

(Check One)
For Assets Placed
in Service During
1971 1972
yes, for all eligible section 1245
and 1250 property 1,10 1,

yes, for all eligible section 1245
and 1250 property except sub-
sidiary assets 2,

yes, but only for eligible section
1245 property 3,

yes, but only for eligible section
1245 property except sub-
sidiary assets 4,

no 5, 1,11

2a. if you checked "no" for 1971 or 1972, do you intend to file an election before termination of the extended filing period? (Check one for each year)

(1,12)	1971	1972	(1,13)
1. yes	_____	_____	1. yes
2. no	_____	_____	2. no

2b. if you have not elected and do not intend to elect ADR, please indicate your reason(s). If you would like to indicate more than one reason, write "1" opposite the most important reason, "2" opposite the next most important, etc.

The company does not fully understand the ADR system or requirements for its election

The depreciation periods normally used by the company are not materially longer than the depreciation periods available under ADR

The company does not contemplate additions in amounts sufficient to warrant the election

The accounting and reporting requirements of an ADR election are too burdensome

The company is a regulated public utility and does not choose to use tax depreciation lives which are different from those prescribed for it by its regulatory authority

The company's net operating loss carry-forward is too large to warrant increases in current deductions under ADR

Other: (please explain)

1.	(1,14)
2.	(1,15)
3.	(1,16)
4.	(1,17)
5.	(1,18)
6.	(1,19)
7.	(1,20)

Part II: Tax Depreciation Items Relating to Assets Placed in Service during Tax Years Ending in 1970, 1971, and 1972

Schedule A: Companies not electing to use ADR. (Please refer to instructions and explanation.)

Total number of companies reported in this Schedule (A) 23

Principal types of depreciable assets Col. (A)	ADR class number Col. (B)	1970 (b)	1971 (c)	1972 (d)	1970 (e)	1971 (f)	Tax life you used or intend to use 1/2 year Col. (D)	Principal depreciation method Col. (E)
i. Depreciable personal property (Section 1245 property)								
1. Office furniture, fixtures, machines, and equipment	44	34	35	45	46	47	48	49
2. Transportation equipment								
2.1								
Other								
3. Other machinery and equipment								
3.1								
3.2								
Other								
ii. Total depreciable personal property (Section 1245 property)								
iii. Total depreciable real property (Section 1250 property)								
iv. All depreciable property (ii + iii)								

*Please enter the following indicators as appropriate:

- SL if the method is straight line
- 1.5DB if the method is declining balance at 1.5 the straight line rate
- 2DB if the method is double declining balance
- SYD if the method is sum-of-years digits

If the method used is other than the above, please so indicate by entering "0" where appropriate and briefly explain in the "remarks" section at the end of the questionnaire. It is important that the information in sections (i), (ii) and (iii) for all columns be as accurate as possible. If you can give complete information for substantially all investments of companies reported in the Schedule but cannot readily do so for the remainder, enter as much as possible in section (i). The section (ii) totals should reflect all new investment, including additions for which complete information is not available.

Part II: Tax Depreciation Items Relating to Assets Placed in Service during Tax Years Ending in 1970, 1971, and 1972

Schedule B: Companies electing to use ADR. (Please refer to instructions and explanation.)

Total number of companies reported in this Schedule (B) 113

Principal types of depreciable assets Col. (A)	Number Col. (B)	1970 Col. (C)	1971 Col. (D)	1972 Col. (E)	ADR Tax life you would have used had you not used ADR Col. (F)	Principal depreciation method* Col. (F) (h)
i. Depreciable personal property (Section 1245 property)	125	115	115	115	115	115
1. Office furniture, fixtures, machines, and equipment	154	154	154	154	154	154
2. Transportation equipment	133	133	133	133	133	133
2.1 Other	174	174	174	174	174	174
3. Other machinery and equipment	153	153	153	153	153	153
3.1	153	153	153	153	153	153
3.2 Other	113	113	113	113	113	113
4. Eligible Section 1245 property excluded from election	193	193	193	193	193	193
5. Ineligible Section 1245 property	193	193	193	193	193	193
ii. Total depreciable personal property (Section 1245 property)	193	193	193	193	193	193
iii. Total depreciable real property (Section 1250 property)	216	216	216	216	216	216
iv. All depreciable property (ii + iii)	216	216	216	216	216	216

Please enter the following indicators as appropriate:
 SL If the method is straight line
 1.5D If the method is declining balance at 1.5 the straight line rate
 206 If the method is double declining balance
 SYD If the method is sum-of-years digits
 If the method used is other than the above, please so indicate by entering "0" where appropriate and enter the "remarks" section at the end of the questionnaire.

It is important that the information in sections (i), (ii) and (iii) for all columns be as accurate as possible. If you can give complete information for substantially all investments of companies reported in the Schedule but cannot readily do so for the remainder, enter as much as possible in section (i). The section (ii) totals should reflect all new investment, including additions for which complete information is not available.

Part III
Your Evaluation of the ADR System

49

(Please check one answer
for each question.)

In your opinion:

a. Does the Class Life (ADR) system reduce the likelihood of audit controversies?

223 *

Yes

No

1

1

220 *

b. Definitions of ADR guideline asset classes in Revenue Procedure 72-10 are satisfactory so far as your company's area(s) of interest is concerned.

225 *

2

2

221 *

(If you answer "no," please indicate in the "remarks" section of this part what changes in specific existing classes you would like to see made.)

227 *

3

3

229 *

c. The repair allowance rule under ADR is useful.

(If you answer "no," please indicate in the "remarks" section of this part what you would recommend to increase the usefulness of the rule.)

d. With respect to the eligible depreciable personal property ("Section 1245 property") which your company has placed in service in 1972 and is planning to place in service in 1973: Do the depreciation periods provided by Revenue Procedure 72-10 generally result in appropriate allowances for depreciation and obsolescence in view of your company's forecast of conditions over their expected period of service?

223 *

4

4

221 *

(If you answer "no," please answer the following and fill in the table below.)

(i) Anticipated future technological obsolescence will necessitate more rapid replacement?

227 *

5

5

2212 *

(ii) Existing circumstances and experience to date indicate that such assets should be replaced prior to the end of such depreciation periods?

2213 *

6

6

2214 *

(iii) Other (explain in remarks).

Asset guideline class number (a)	Revenue Procedure 72-10 guideline period (b)	Suggested guideline period (c)
1.		
2.		
3.		
4.		
5.		
6.		

2. In your opinion and experience:

- a. Is projected tax depreciation a significant consideration in evaluating capital investment proposals

(i) generally; or

(ii) at the margin where decisions are not clearly dictated by other factors?

Yes No

1. 3. 23,3

2. 4. 23,3

- b. In general, what will be the effect of the Class Life (ADR) system on your investment in machinery and equipment during 1973-78 (assuming all other factors affecting marginal cost of investment remain constant)?

(i) No significant effect.

(ii) Will affect replacement of existing plant.

(iii) Will affect expansion.

(Check as Appropriate)

amount of investment (increased) timing of investment (acceleration)

23,5 V 23,3 V

23,7 V 1. 4. 23,3 V

2. 5. 23,3 V

23,9 V 3. 6. 23,0 V

* If you check more than one, please number in order of importance, "1" for most important.

3. Remarks:

Suggested changes in ADR guideline asset class definitions:
(Please cite class numbers.)

Suggested changes in ADR repair allowance rule:
